

### Abstract of the Disclosure

Emboolic protection aspirators and methods for extracting debris from the vasculature during interventional procedures are provided. One such system may include an aspirating filter delivery catheter having a filtration device, an operable end cap, and a plurality of aspiration ports. The delivery catheter may be fluidly coupled to a suction providing means for extracting debris while traversing a target site for distal delivery of the filtration device. Another such system may include an aspirating filter retrieval catheter having an aspiration lumen and a balloon. The aspiration lumen may be fluidly coupled to a suction providing means for extracting debris from the filtration device prior to and/or during retrieval of the filtration device. By inflating the balloon to partially or fully restrict blood flow, suction pressure proximal of the filtration device may be increased to enhance debris extraction.